

III. Alternatives

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The [redacted] concept:

- : is uncertain of success
- : is long-term and demanding effort (several years)
- : is expensive (especially during developmental years)
- : perpetuates major central support system (as opposed to sharp curtailment of central system and near-total dependence upon Analyst Files)

In view of the above, the following are perhaps the major options open to management:

- A. Abandon the doc/info system element of Project [redacted] because of uncertainty of success, expense, and length of time required in development.

In this case, OCR might be left as it is or somewhat reorganized and/or patched using present-day EDP equipment.

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The [redacted] component would assist in above OCR modification and continue/expand its EDP applications ("special projects" etc.)

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[redacted] concept of total, integrated DD/I doc/info system might be tried again in 4 or 5 years.

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- B. Continue [redacted] systems design effort through Phase II -- to be followed by implementation action (Phase III) if deemed feasible and desirable as result of Phase II.

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In this case, [redacted] would proceed as outlined in this paper.

Initial implementation, if it followed Phase II, would be essentially on present-day hardware.

Significant support to R & D of hardware and/or software may become an essential element of this option in that capability for full Phase IV (total DD/I System) does not exist today.

- 25X1A2g c. Greatly expand the scope of attack on the [redacted] system problem in effort to force solutions at advanced date.

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In this case, the [redacted] doc/info system task would be entrusted largely to contractors (Hardware, Software, Systems Design, etc.)

Development costs would greatly increase (perhaps \$3-5,000,000/annum) if the program were to be pursued.

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- D. Reject the [REDACTED] conclusion that major Central Support System is required and undertake program to maximize the utility of Analyst Files, automating some elements; cut back the present Central System to an arc. will role

In this case, management would have to decide that, in spite of the arguments for a large and active Central System, the costs of same exceed the value.

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IV. Recommendation:

Alternative B above.

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TAB B

Approved For Release 2001/04/04 : CIA-RDP78-04727A000200250044-6

28 June 1963

MEMORANDUM FOR: Deputy Director (Intelligence)

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SUBJECT : Project [REDACTED] - Quarterly Reports for First and Second Quarters of 1963 (Combined)

1. Three Principal Tasks of Project [REDACTED]

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The three principal tasks originally conceived for Project [REDACTED] are still valid descriptors of this Project; to wit:

Task I - Establish a computer center.

Task II - Implement applications on the computers.

Task III - Plan and design a new document/information retrieval system for the DD/I.

2. Task I - (Establish a computer center)

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a. The [REDACTED] Computer Center was established in January 1963 when the IBM 1410/1401 computing system was installed in the Headquarters Building. The site used, however, was a temporary one. In May 1963, the permanent site for the [REDACTED] Computer Center was selected and site preparation (air conditioning, false floor, electric power, etc.) is now well advanced. The new site, Room GD 14, is scheduled to be ready on 15 July 1963.

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b. In May, approval was given to acquire an IBM 7090 scientific computer, in addition to the IBM 1410/1401 computers of the initial [REDACTED] center. It is planned that the IBM 7090 be installed on 15 July 1963 in the new site and that the 1410/1401 computers be moved to the new site as soon as possible thereafter. These three machines will be operationally interdependent in the new [REDACTED] configuration. The new center is scheduled to be operational by 1 August 1963.

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c. In addition to the IBM 7090, 1410, and 1401, the new computer site will house a small scientific computer being used in developmental work on a DD/P project. Also, it is planned that the computer now being considered for machine translation/stenowriting will be housed in the new center.

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d. Peripheral to the new computer room itself will be a tape library vault, a key punch room, an IBM service engineers' room, and some office space for Programmers and Systems Analysts. The new key punch room is scheduled for completion in September 1963. When this room is ready, the [redacted] key punch section will move 25X1A2g from its present location on the 2nd floor, G Wing where it has been using space provided through the cooperation of SR/CR.

e. The workload on the present [redacted] computers has built 25X1A2g up more rapidly than expected. The 1410 is now running almost two shifts; the 1401 about one shift. The initial workload for the 7090 is expected to be something less than one shift for the first months of operation.

25X1A2g f. The computer hardware configurations of the DD/P's [redacted] system and the DD/I's [redacted] system are quite similar. 25X1A2g The Systems Group, DD/P and the Intelligence Division, ADPS have agreed on preliminary plans for providing backup operational support to either system in the event of hardware failure.

25X1A2g g. The new [redacted] computer room and peripheral space will be a controlled access area and will handle "all source" data.

3. Task II - (Implement Applications)

a. Although most of the [redacted] effort is in support of the DD/I, there has been a clear tendency for [redacted] to become involved in extra-DD/I support. Some of this extension of [redacted] resources results from DD/I projects which are also applicable to components outside the DD/I. Some of it results from the fact that [redacted] is CIA's only computer facility established to provide general support to intelligence production. Some stems, no doubt, from the simple fact that time can be made available on the [redacted] computers. During this report period, [redacted] has 25X1A2g provided support to the following:

DD/I - OSI, ORR, OCR, OCI, NIC, CIA/DIA Joint Analysis Group

DD/S - OS, COMMO, PSD/OL

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25X1A DD/P - [redacted]

Other - [redacted]

b. Applications Highlights

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1) Trajectory Analysis

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[redacted] now has ten computer programs in the trajectory field supporting interests in the Ballistic Missiles Branch, DSD, OSI and in the Technical Branch, BMSD, OSI. Eight of these are operational on the IBM 1410; the remaining two were written for the IBM 709. All of these programs will be converted for running on the IBM 7090 computer which will be installed in the new [redacted] center in July. These programs are run as requested by OSI analysts.

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OSI and [REDACTED] personnel are cooperating in efforts to find and obtain from other government agencies and the

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specification requested.

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3) Target Brief File

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Arrangements have been made with NPIC for the monthly transfer to [REDACTED] of current machine language copies of the Target Brief File. [REDACTED] can now search this file and has done so for OCI and ORR analysts. More sophisticated search capabilities, including scanning of the free-text portions of the file, are being developed. 25X1A2g

4) COMOR Targeting

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In support of the Chairman, [REDACTED] Targeting Working 25X1A2g Group, a system has been developed for controlling information on [REDACTED] targets. File creation is essentially complete, and all computer programs are operational.

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25X1A2g basis. Some of the files under consideration are already held by [REDACTED] such as the [REDACTED] target files, the Target Brief File, the FPN file, and the SAM Site file. Other files would be obtained from other members of the community. Such a system will provide for rapid collation of information on the installations in the various files on the basis of name, type or characteristics of installations, and geographic points or areas. Work to date has consisted of efforts to develop a concept for integration and a study of what files should be included in such a system.

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11) SCIPS
Data collected by the Staff for the Community Information Processing Study (SCIPS) of CODIB are being processed on the [REDACTED] has contributed major amounts of programming time and machine time to the SCIPS effort. In addition, [REDACTED] has trained a Programmer on all SCIPS programs (written by ADPS, [REDACTED], and the [REDACTED]) to assure an in-house knowledge of these programs after the departure of SCIPS contractor personnel.

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12) Support to OSA, DD/R
[REDACTED] has two mathematician Programmers working full-time on the OSA computing effort. Programs are operational on the IBM 1410 and others are in preparation for the IBM 7090. [REDACTED] will, of course, also provide computer room support to the DD/R in operating the computers required by DD/R projects.

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13) EDP Support to OC

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[REDACTED] has provided programming and operational services for several COMMO (Operations Staff and SIGINT Program Staff) projects. These involved using a 7090 computer at NSA, paper tape to mag tape conversion equipment in RID, DD/P and the [REDACTED] 1410/1401 computer system.

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14) [REDACTED] Facilities Serving OS

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The [REDACTED] key punching, programming and computer operations groups have been engaged on three EDP projects for OS: (1) Special Clearances, (2) Case Status and (3) Security Index.

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c. Scientific Programming Support - Contractor Assistance

Discussions have been held with [REDACTED] with a view toward 25X1A5a1 the negotiation of a contract for the services of two specialists in scientific programming support particularly in the area of missile and space vehicle development. The services to be rendered under this contract would expand [REDACTED] capabilities, particularly in support of the Defensive Systems and Ballistic Missiles and Space Divisions of OSI; the workload in this area, already significant, is expected to increase as [REDACTED] machine and personnel capabilities increase. 25X1A2g

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d. Machine Translation/Stenowriter Capability

A statement of the Agency's requirements and specifications for an Automatic Language Processing (ALP) System was submitted to the [REDACTED] corporations. This ALP system will be designed to provide for machine translation (Russian to English, initially) and for automatic conversion to English of Stenomachine code. Both [REDACTED] have strong interests in this field. Both have submitted proposals to the Agency, which are now under comparative review. A contractor for the ALP system is to be selected in July. Delivery of the system is expected fifteen months hence.

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e. Machine Assistance for [REDACTED] 25X1A7b

ADPS is collaborating with PSD and [REDACTED] in developing a system which uses special Flexowriters in [REDACTED] processing. The objective is to eliminate much retyping and to automatically prepare error-free copy on mats for offset printing. Texts prepared on paper tapes can easily be updated when a minor revision of the original publication is required (e.g., portions of the NIS). 25X1A7b
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f. Computer Printing Composition Programs

The ADPS, working with PSD, is studying the feasibility of applying computers to the publication process. Data which is available in machine readable language (e.g. paper tape) can be processed by a computer--formatted, edited and written on magnetic or paper tape to drive line casting or photo composing machines.

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g. Project [REDACTED] (NIC Study)

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This study project was delegated to the [REDACTED]

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[REDACTED] The resultant TRW report has been carefully reviewed by NIC and ADPS personnel. No decision has been made regarding implementation of the system proposed by [REDACTED] for the NIC pending clarification of the relationship between DIA and NIC in the production of indications intelligence.

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h. Air Force Use of [REDACTED] computers for ELINT Programs

At the request of the Air Force, [REDACTED] is providing computer support and computer-operator support to an Air Force contractor [REDACTED] in debugging IBM 1410 programs designed to process dual collection site simultaneous ELINT intercepts. This support is expected to continue for another four to six months. [REDACTED] has informed OEL DD/R of this effort.

4. Task III - (Doc/Info Retrieval Systems Design)

a. Task III is perhaps the most difficult of all the [REDACTED] tasks. Task III calls for the design and development of an improved document/information retrieval system for the DD/I. We have scheduled this task in four phases, as follows:

Phase I - Fact-Finding and formulation of overall system concept (Sept 62 - June 63)

Phase II - Detailed Systems Design
(July 63 - June 64)

Phase III - Implementation of initial segment
(July 64 - April 65)

Phase IV - Implementation of additional increments
(May 65 - ?)

b. Phase I has just been concluded. The fact-finding portion ran from September 1962 through April 1963. Initial formulation of the overall system concept was carried out during May and June 1963. The overall concept which resulted must be considered tentative. Refinement and change are certain to occur during Phase II, which will start 1 July 1963.

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c. The [REDACTED] system concept, however, does call for a machine-supported central document/information retrieval system which will cover all input sources, all categories of information (persons, organizations, geographic areas, commodities, etc.) with single-handling for input, single-point retrieval, and an output product which is integrated to the extent feasible despite differences in security classification, source, or category of information comprising the terms of search. Future capabilities called for by the concept include machine translation, remote input/output, automatic indexing, dissemination, and extracting. (An outline report on Phase I has been prepared and submitted to management.)

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d. A Phase II contract for technical assistance has been let with the [REDACTED] Contractor personnel for Phase II will be housed in the [REDACTED] area at Headquarters, as was also the case during Phase I.

5. Recruitment and Training

During this report period, [REDACTED] has intensified its efforts to recruit Programmers (Trainees), particularly those holding degrees in Mathematics. 25X1A2g

Although we have had sixty (60) persons in the in-processing pipeline since the first of the year, the number actually reporting for duty is disappointing. Private industry repeatedly outbids us in the salary department and, almost equally important, offers unconditional and immediate employ to a candidate, whereas the Agency must, of course, complete its lengthy clearance procedures before confirming a job offer.

We have twelve (12) Programmers on board now, four (4) of whom are mathematicians. We have thirty-nine (39) Programmers in the pipeline of whom sixteen (16) are mathematicians.

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[REDACTED] continues to invest heavily in EDP training. I feel that computing skills are being developed within [REDACTED] at a rapid rate. 25X1A2g



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Chief
Automatic Data Processing Staff

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OCR (3)
ONE (3)
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ORR (3)
OSI (3)